



## UNITED STATES DEPARTMENT OF COMMERCE

Patent and Trademark Office

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Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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09/1899607

7/5/01

Andrea L

207275

## EXAMINER

Naff

ART UNIT	PAPER NUMBER
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1601

14

## DATE MAILED:

## INTERVIEW SUMMARY

All participants (applicant, applicant's representative, PTO personnel):

(1)  Payne (3) \_\_\_\_\_(2)  Naff (4) \_\_\_\_\_Date of Interview  3/11/03Type:  Telephonic  Televideo Conference  Personal (copy is given to  applicant  applicant's representative).Exhibit shown or demonstration conducted:  Yes  No If yes, brief description: \_\_\_\_\_Agreement  was reached.  was not reached.Claim(s) discussed:  claims rejectedIdentification of prior art discussed:  noneDescription of the general nature of what was agreed to if an agreement was reached, or any other comments:  discussed possible amendments to claims to overcome 112 rejections.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

 It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph above has been checked to indicate to the contrary. A FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has not been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW.

Examiner Note: You must sign this form unless it is an attachment to another form.

## Manual of Patent Examining Procedure, Section 713.04 Substance of Interview must Be Made of Record

Except as otherwise provided, a complete written statement as to the substance of any face-to-face or telephone interview with regard to an application must be made of record in the application, whether or not an agreement with the examiner was reached at the interview.

### §1.133 Interviews

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(b) In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111 and 1.135. (35 U.S.C. 132)

§ 1.2. Business to be transacted in writing. All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete a two-sheet carbon interleaf Interview Summary Form for each interview held after January 1, 1978 where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks in neat handwritten form using a ball point pen. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, pointing out typographical errors or unreadable script in Office actions or the like, or resulting in an examiner's amendment that fully sets forth the agreement are excluded from the interview recordation procedures below.

The Interview Summary Form shall be given an appropriate paper number, placed in the right hand portion of the file, and listed on the "Contents" list on the file wrapper. In a personal interview, the duplicate copy of the Form is removed and given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephonic interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication.

The Form provides for recordation of the following information:

- Application Number of the application
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (personal or telephonic)
- Name of participant(s) (applicant, attorney or agent, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the claims discussed
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). (Agreements as to allowability are tentative and do not restrict further action by the examiner to the contrary.)
- The signature of the examiner who conducted the interview
- Names of other Patent and Trademark Office personnel present.

The Form also contains a statement reminding the applicant of his responsibility to record the substance of the interview.

It is desirable that the examiner orally remind the applicant of his obligation to record the substance of the interview in each case unless both applicant and examiner agree that the examiner will record same. Where the examiner agrees to record the substance of the interview, or when it is adequately recorded on the Form or in an attachment to the Form, the examiner should check a box at the bottom of the Form informing the applicant that he need not supplement the Form by submitting a separate record of the substance of the interview.

It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview:

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner. The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he feels were or might be persuasive to the examiner,
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete or accurate, the examiner will give the applicant one month from the date of the notifying letter to complete the reply and thereby avoid abandonment of the application (37 CFR 1.135(c)).

### Examiner to Check for Accuracy

Applicant's summary of what took place at the interview should be carefully checked to determine the accuracy of any argument or statement attributed to the examiner during the interview. If there is an inaccuracy and it bears directly on the question of patentability, it should be pointed out in the next Office letter. If the claims are allowable for other reasons of record, the examiner should send a letter setting forth his or her version of the statement attributed to him. If the record is complete and accurate, the examiner should place the indication "Interview record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

**Naff, David**

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**From:** tpayne@cl-law.com  
**Sent:** Thursday, May 08, 2003 1:33 PM  
**To:** david.naff@uspto.gov  
**Subject:** Serial number: 09/899,607

Examiner Naff:

As recently discussed, attached is a talking paper for your review that I would like to discuss during an Interview after you've had the opportunity to review the attached talking paper. Thus, as discussed, I would appreciate your acknowledging receipt of this email and the attachment and indicating when it might be convenient for us to discuss same.

Respectfully,

R. Thomas Payne  
Cummings & Lockwood LLC  
Four Stamford Plaza  
Stamford CT 06904-0120  
203-351-4192  
203-708-3943 (Fax)

CONFIDENTIALITY NOTICE: This email transmission (and/or the attachments accompanying it) may contain legally privileged and confidential information, and is intended only for the use of the individual or entity named above. If you are not the intended recipient, you are hereby notified that any dissemination, disclosure, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please promptly notify the sender by reply email and destroy the original message. Thank You.

In a sincere effort to better explain and amplify key concepts in the present disclosure and to highlight terms used in the present amendment, applicants would, first and most importantly; like to take this opportunity to explain to the Examiner the differences between the various specific components of the claimed product which includes the following three separate and distinct components:

- (1) a **support**,
- (2) a **substrate** and
- (3) a **surface treatment**,

and, more specifically, what is included in each and what is not included in each of the three components. Specifically, the Examiner's attention is directed to the following:

(1) The **support** component of the **composite microarray slide** is the component to which the array of biological polymers are attached. In all embodiments described in the specification, the **support** is the **membrane component**. As should be clear from the specification, Support = 1) membrane, 2) phase inversion membrane, 3) phase inversion membrane plus opaque solids, all of which can be found in the specification at the following locations. (Need to provide page and line numbers here)

(2) The **substrate** component of the **composite microarray slide** is the component which provides strength, dimensions, and physical robustness in handling such as, for example, the glass or plastic coupon and can be found in the specification in the following locations: (Need to provide page and line numbers here)

(3) The **surface treatment** component of the **composite microarray slide** is the component that bonds or otherwise operatively attaches the **membrane** component to the **substrate** component. As disclosed in the present specification, representative surface treatments include, but are not limited to, silanol, "R" groups, Resicart, TEPA, containing all functional groups which provide covalent attachment between the **support** component and **substrate** component of the **composite microarray slide**. As clearly delineated in the present specification, the **surface treatment** component of the **composite microarray slide** = 1) bifunctional silanes which by themselves function as a combination anchor-linker, an example of which is illustrated in Fig 5C, 2) bifunctional silanes which act as anchor only, and require a separate linker (preferably Resicart E), an example of which is illustrated in Fig 5A and can be found in the specification in the following locations: (Need to provide page and line numbers here).

Further, prior to addressing the Examiner's specific rejections, in a continued sincere effort to better explain and amplify key concepts in the present disclosure and to highlight terms used in the present amendment, applicants would, like

to take this opportunity to explain to the Examiner the concept of anchor-linker as described above.

Figure 3 is a representative graphic depiction of a silanol condensation reaction in which the silanol in solution condenses with the silanol on the glass surface, the **substrate** component of the **composite microarray slide**, expelling water and creating the treated glass surface. The silanol, once condensed on the glass surface, represents the **Anchor** portion of the anchor-linker concept. Depending on the "R" group, the silane will react and covalently attach directly to the nylon membrane, the **support** component of the **composite microarray slide**, or will react with an intermediate. The intermediate may then react and covalently attach directly to the nylon membrane; thus, the intermediate represents the **Linker** portion of the anchor-linker concept. Once attached to glass, the organosilane with the available "R" group becomes the **Anchor**. In other words, the organosilane has been covalently attached to glass through the silane (head) end of the molecule, leaving an available "R" group at the other (tail) end of the molecule available to perform further functions.

As discussed in the specification at page?, line?, this reaction proceeds as illustrated in Figure 4a and Figure 4B, according to whether the group is an amino functional group or a carboxyl functional group, respectively.

If the 'R' functional group of the organosilanol initially contains an epoxy functional group, the 'R' functional group of the organosilanol can bond directly with the nylon without exposure to polyamido-polyamine epichlorohydrin polymer. As before, the epoxy group bonds either to amino functional groups or to carboxyl functional groups on the nylon, as illustrated in Figure 4. The nylon membrane is stretched over the membrane and clipped and dried as described above, thus completing the link, and resulting in a **covalent attachment** of glass to silane-plus-"R" group combination **anchor and linker**, to nylon.

Figure 5a is a representative graphic depiction of the attachment bond between the nylon membrane, representative of the **support** component of the **composite microarray slide** and the glass, representative of the **substrate** component of the **composite microarray slide**, resulting from using 3-aminopropyl triethoxysilane as a representative **Anchor**, and polyamido-polyamine epichlorohydrin polymer as a representative **Linker**

Figure 5b is a representative graphic depiction of the attachment bond between nylon membrane, representative of the **support** component of the **composite microarray slide** and glass, representative of the **substrate** component of the **composite microarray slide**, resulting from using 1-carbomethoxy-decyl-dimethyl chlorosilane as

the **Anchor**, and polyamido-polyamine epichlorohydrin polymer as the **Linker**.

Figure 5c is a representative graphic depiction of the attachment bond between nylon membrane, representative of the **support** component of the **composite microarray slide** and glass, representative of the **substrate** component of the **composite microarray slide**, resulting from using glycidoxypropyltrimethoxysilane which functions as both the **Anchor** and the **Linker** functionality in the organosilane. This particular representative embodiment does not require a separate intermediate, but effects direct attachment between the nylon membrane representative **support** component and the glass representative **substrate** component of the **composite microarray slide**.

Also, why do we need arguable theory re phase inversion in an independent claim? The independent claim which you suggested includes a recitation of arguable theory re phase inversion which, in our view is not necessary. In our view, it is believed best to leave the phase inversion theory in the specification and not expressly recite such theory in the claims, since phase inversion was specifically defined by reference to certain terms. It is believed preferable to use phase inversion as a generic term to describe the industry-recognized classes of polymers, processes and structures of resulting membranes, and our client has done this many times in numerous other applications that have resulted in issued Patents. We believe that the best solution is to clarify the phase inversion concept with the Examiner via a telephone interview where we walk him through the text already in the specification that explains the phase inversion process and then convert the agreement reached into text in the amendment to be filed.